WHAT IS CLAIMED IS:

1. Electron beam exposure equipment comprising: an electron gun; an electron optics system irradiating an electron beam emitted from said electron gun on a sample via aligners and two electromagnetic lenses for forming one image; and an electron detector used for detecting the position of said electron beam, wherein the position of an electron beam near an image plane with changing excitation of said two electromagnetic lenses is measured, and driving of said aligners and/or the excitation intensity of said two electromagnetic lenses is reset based on the measured result for performing optical adjustment of said electron optics system.

2. The electron beam exposure equipment according to claim 1, wherein said electron beams are multi beams having plural electron beams arrayed at a predetermined pitch, and a specific electron beam of said multi beams is used to measure the position of an electron beam near an image plane.

3. The electron beam exposure equipment according to claim 1, wherein one of said two electromagnetic lenses is under stronger excitation, and the other is under weaker excitation.

4. The electron beam exposure equipment according to claim 1, wherein in said resetting, one of said two electromagnetic lenses is under stronger excitation, and the other is under weaker excitation.

5. The electron beam exposure equipment according to claim 1, wherein the magnitudes of the rates of change of excitation current of said two electromagnetic lenses are almost equal.

6. The electron beam exposure equipment according to claim 1, wherein the magnitudes of the change of excitation current of said two electromagnetic lenses are almost equal.

7. The electron beam exposure equipment according to claim 1, wherein in said resetting, the ratio between the magnitude of the rate of change of excitation current of the electromagnetic lens on the upstream side of said two electromagnetic lenses and the magnitude of the rate of change of excitation current of the electromagnetic lens on the downstream side thereof is almost equal to a magnification decided by said two electromagnetic lenses.

8. Electron beam exposure equipment comprising: an electron optics system irradiating plural electron beams arrayed at a predetermined pitch on a sample via aligners and a doublet lens having two electromagnetic lenses for forming one image; and an electron detector used for detecting the position of said electron beam, wherein in a specific electron beam of said plural electron beams, the position of said specific electron beam near an image plane with changing excitation of said two electromagnetic lenses is measured, and driving of said aligners and/or the excitation

intensity of said two electromagnetic lenses is reset based on the measured result for performing optical adjustment of said electron optics system.

9. The electron beam exposure equipment according to claim 8, wherein one of said two electromagnetic lenses is under stronger excitation, and the other is under weaker excitation.

10. The electron beam exposure equipment according to claim 8, wherein in said resetting, one of said two electromagnetic lenses is under stronger excitation, and the other is under weaker excitation.

11. The electron beam exposure equipment according to claim 8, wherein the magnitudes of the rates of change of excitation current of said two electromagnetic lenses are almost equal.

12. The electron beam exposure equipment according to claim 8, wherein the magnitudes of the change of excitation current of said two electromagnetic lenses are almost equal.

13. The electron beam exposure equipment according to claim 8, wherein in said resetting, the ratio between the magnitude of the rate of change of excitation current of the electromagnetic lens on the upstream side of said two electromagnetic lenses and the magnitude of the rate of change of excitation current of the electromagnetic lens on the downstream side thereof is almost equal to a magnification decided by said two electromagnetic lenses.

14. Electron beam exposure equipment comprising: an electron gun; an electron optics system irradiating an electron beam emitted from said electron gun on a sample via aligners and at least two electromagnetic lenses for forming one image; and an electron detector used for detecting the position of said electron beam, wherein the position of an electron beam near an image plane with changing excitation of said at least two electromagnetic lenses is measured, and driving of said aligners and/or the excitation intensity of said two electromagnetic lenses is reset based on the measured result for performing optical adjustment of said electron optics system.

15. An electron beam exposure method comprising the steps of: irradiating an electron beam emitted from an electron gun on a sample via aligners and an electron optics system having two electromagnetic lenses for forming one image; detecting the position of said electron beam using said electron detector; and measuring the position of an electron beam near an image plane with changing excitation of said two electromagnetic lenses to reset driving of said aligners and/or the excitation intensity of said two electromagnetic lenses based on the measured result for performing optical adjustment of said electron optics system.

16. The electron beam exposure method according to claim 15, wherein said electron beams are multi

beams having plural electron beams arrayed at a predetermined pitch, and a specific electron beam of said multi beams is used to measure the position of an electron beam near an image plane.

17. The electron beam exposure method according to claim 16, wherein a specific electron beam of said multi beams is used to measure the position of an electron beam near an image plane, and a value obtained from the position of said specific electron beam is used as the position of an electron beam.

18. The electron beam exposure method according to claim 15, wherein in said resetting, one of said two electromagnetic lenses is under stronger excitation, and the other is under weaker excitation.

19. The electron beam exposure method according to claim 15, wherein the magnitudes of the rates of change of excitation current of said two electromagnetic lenses or the magnitudes of the change thereof are almost equal.

20. The electron beam exposure method according to claim 15, wherein in said resetting, the ratio between the magnitude of the rate of change of excitation current of the electromagnetic lens on the upstream side of said two electromagnetic lenses and the magnitude of the rate of change of excitation current of the electromagnetic lens on the downstream side thereof is almost equal to a magnification decided by said two electromagnetic lenses.